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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/572,850	03/22/2006	David Howard Ambrose	358-14 US	3703
23716 7590 08/06/2009 ANTHONY ASQUITH 28-461 COLUMBIA STREET WEST WATERLOO, ON N2T 2P5 CANADA				
EXAMINER FONSECA, JESSIE T				
ART UNIT 3633		PAPER NUMBER		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/572,850

Applicant(s)

AMBROSE, DAVID HOWARD

Examiner

JESSIE FONSECA

Art Unit

3633

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 June 2009.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-19 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 22 March 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date 3/22/06
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

The information disclosure statement filed 3/22/06 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information pertaining referred to therein under the heading of "Foreign Patents" on the information disclosure statement has not been considered. However, note CA 1,332,541 has been cited by Examiner on the PTO-892 form.

Election/Restrictions

Applicant's election with traverse of Species I in the reply filed on 6/26/09 acknowledged. The traversal is on the ground(s) that MPEP 806.02 makes it clear not to introduce patentably questions when making a decision on the question of restriction and MPEP 801.01 (a) states a restriction should not be required if the species are unpatentable (obvious) over one another.

In response, Examiner notes the cited MPEP sections are no longer present in the updated version of the MPEP. Nonetheless, Examiner submits the Ricks patent was not used to introduce patentably questions in the restriction, but instead is relied to teach the common technical feature shared among applicant's species cannot be relied on as a special technical feature as the feature is well known in the art as shown by Ricks. However, with regard to applicant's arguments that a restriction should not have been required as the species are obvious over one another is found persuasive.

Accordingly, Species I, II, and III will be examined in view of applicant's admission that each of the species are obvious over one another. Claims 1-19 are to be examined.

Claim Objections

Claims 1 objected to because of the following informalities:

Claim 1, line 2: It appears applicant inadvertently added a dash(-) after "includes:". Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1: Both lines 3 and 5 of the claim both positively recite "a spacer structure". It's unclear if the recited spacer structures are one in the same or if they are separate structures.

Regarding claim 19: The claim is indefinite as it appears the step of removing moisture is one in the same with step of blowing pre-dried air into the vault. Note the specification recites the blowing of pre-dried air into the vault is done in order to remove traces of condensate or liquid (par. [0017]). As such, it appears the accumulated moisture has not been removed before the blowing of pre-dried air as claimed.

Claims 1-19 is examined as best understood.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2 are rejected under 35 U.S.C. 102(b) as being anticipated by Ricks (US 4,567,703).

With regard to claim 1: Ricks discloses an apparatus for alleviating condensation in a double-glazed window (figs. 1-3), wherein: the apparatus includes:

two panes of glass (24, 26) and a spacer structure (22) for holding the panes apart in a parallel, spaced-apart relationship, whereby the panes (24, 26) define a between-panes vault;

the spacer structure (22), which defines a periphery or circumference of the between-panes vault;

sealing means (21, 23), for sealing the panes of glass to the spacer structure (22), around the periphery of the vault, whereby a pressure differential can exist between the pressure of air inside the vault and the pressure of air outside the vault (fig. 1);

a valve assembly (28), which includes a closure member, a seating, and a passageway for transference of air between the vault and the air outside the vault (figs. 2-3);

the valve assembly (28) is operable between a closed condition and an open condition (figs. 2-3);

in the open condition, the closure member is out of sealing contact with the seating, whereby the passageway is open to the transference of air between the vault and the air outside the vault (fig. 3);

in the closed condition, the closure member makes sealing contact with the seating, whereby air cannot pass through the passageway between the vault and the air outside the vault (fig. 2);

the apparatus includes a valve operator (44), which is effective to operate the valve between the closed condition and the open condition (figs. 2-3); and

the operator (44) is effective to operate the valve in response to a change in the pressure differential between the air in the vault and the air outside the vault (abstract).

With regard to claim 2: Ricks further discloses the passageway is so wide open, in the open condition, that any pressure differential that might be present between the air in the vault and the air outside the vault dissipates substantially instantaneously, due to transference of air into or out of the vault, through the wide-open passage (abstract).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3-4 and 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ricks (US 4,567,703).

With regard to claims 3-4: Ricks discloses everything previously mentioned including the valve assembly lies assembled in a through-hole in one of the glass panes (figs. 1-3), but fails to disclose the through-hole has a diameter of not less than about five mm and not more than twenty mm.

However, it would have been obvious matter of design choice to one of ordinary skill in the art at the time of the invention made to include a through-hole of adequate diameter to a house valve assembly for equalizing pressure between the outside atmosphere and the inside vault. One of ordinary skill in the art at the time of the invention would recognize the diameter of the through-hole is depended upon the size of the vault, the desired rate of air dissipation between the vault and outside environment, and the size of the valve assembly used. No new or unpredictable results would be expected from providing a through-hole, such as the claimed diameter size.

With regard to claims 12-13: Ricks further discloses the use of window assemblies for buildings, where the windows are subject change in pressure due to atmosphere outside the building (col. 1, lines 20-45) and the valve assembly is so

oriented as to create the passageway between the vault and the outside atmosphere (figs. 1-3).

Ricks fails to disclose the building structure is located where the average atmospheric temperature, year round, is less than or more than twenty degree Celsius.

However, it would have been an obvious to one of ordinary skill in the art at the time of invention to use a window and vault assembly in various locations including those with a year round atmospheric temperature of less than or more than twenty degree Celsius. No new or unpredictable results would be expected from having a building structure located in an area with a year round atmospheric temperature of less than or more twenty degree Celsius as building structures are built all around in various atmospheric temperatures.

Claims 5-10 and 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ricks (US 4,567,703) in view of Lerner et al. (US 4,217,930)

With regard to claim 5: Ricks discloses everything previously mentioned, but fails to disclose the valve is of a normally-open configuration, in that the valve is structured to remain in the open condition when the said pressure differential is zero or nearly zero.

However, Lerner et al. discloses a valve that is structured to remain in an open condition so as to facilitate movement of atmospheric air (abstract; col. 4, lines 62-64).

It would have been obvious to one of ordinary skill in the art at the time of invention was made to substitute the valve of Ricks to include a valve that will remain

open as taught Lerner et al. in order provide an constant means of pressure equalization between the outside atmosphere and the vault.

With regard to claim 6: The operator of Lerner et al. is effective to operate the valve to the open condition when the pressure inside the vault is higher than the pressure outside the vault (col. 4, lines 62-64). Note the claim does not specify how the operator opens the valve; therefore the valve can be opened via automatic or manual means.

With regard to claim 7: The operator of Lerner et al. is effective to operate the valve to the closed condition when the pressure inside the vault is lower than the pressure outside the vault. As noted above, the claim does not specify how the operator opens the valve; therefore the valve can be closed via automatic or manual means.

With regard to claim 8: Lerner et al. discloses the valve assembly is of a normally-open check-valve configuration;

the operator includes a spring (26); and

the spring acts upon the closure member in such directional sense as to urge the closure member clear of the seating (col. 4, lines 62-64).

With regard to claims 9-10: As per the modification of claim 5, the spring exerts such force as to close the valve when the pressure inside the vault is lower than the pressure outside the vault. Note the valve of Lerner et al. remains open unless forced closed manually, therefore capable of remaining open when the pressure differential is less than five Pascal's.

Ricks and Lerner et al. discloses everything previously mentioned, but fails to disclose the magnitude of the pressure differential exceeds more than five Pascal's and less than one hundred, and preferably is less than fifty, Pascal's.

However, as Lerner et al. discloses the valve is closed manually, it would have been obvious to one of ordinary skill in the art at the time of the invention to apply a force of sufficient magnitude to close the valve including forces well above five Pascal's. Note, applicant's valve remains open unless an outside pressure forces the valve closed, such as wind or sprayed water.

Further, one of ordinary skill in the art at the time of invention was made would recognize that force (magnitude) applied is depended upon the strength of the spring and it ability to resist moving from a state of normalcy when subjected to outside forces (pressure) such as manual force disclosed by Lerner et al. No new or unpredictable results would be expected from having a pressure differential of less than one hundred and preferably less than fifty Pascal's as one of ordinary skill in art would have chosen a spring material of sufficient strength to open close the valve depended upon a desired magnitude of pressure.

With regard to claims 15-17: Lerner et al. discloses the spring of the valve assembly includes a wire coil spring. Neither Ricks nor Lerner et al. disclose the spring is made of a non-corroding metal.

However, Lerner et al. discloses that need to improve prior venting apparatuses which tend to be non-corrosive resistant (col. 2, lines 29-33.

It would have been obvious to one of ordinary skill in the art at the time invention was made to modify the valve of Ricks, previously modified by Lerner et al., to be made of a spring of non-corrosive metal in order to provide valve structure that is not subject to degradation due to moisture. No new or unpredictable results would be expected from choosing the spring material of Lerner et al. to be a non-corrosive metal for its known inherent properties of not degrading overtime when exposed to moisture.

As the valve structure of a coiled spring is disclosed in the prior art and in view of applicant's admission in the response of 6/26/09 that applicant's valve assemblies are obvious variants over one another, it would have been obvious to provide a valve assembly having a domed diaphragm, made of elastomeric material; wherein the closure member comprises a ring of the domed diaphragm disclosed in claim 15 or at least one resiliently-deflectable leaf of plastic material disclosed in claim 17.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ricks (US 4,567,703) in view of Lerner et al. (US 4,217,930) and in further view of De See (US 3,108,610).

With regard to claim 11: Ricks, in view of Lerner et al. discloses everything previously mentioned, but fails to disclose a filter screen having a mesh pitch of about fifty by fifty holes per inch, or finer is affixed into a housing of the valve assembly, and is located in the valve assembly so as to prevent particles from outside the vault from reaching the spring, the closure member, and the seating.

However, De See discloses a filter screen (45) for preventing particles from passing through the valve assembly (fig. 2).

It would have been obvious to one of ordinary skill in the art at the time of invention was made to modify the valve assembly of Ricks, previously modified by Lerner et al., to include a filter screen as taught by De See in order to provide a valve assembly capable of mitigating the intrusion of unwanted particles. Further, it would have been an obvious matter of design choice to one of ordinary skill in the art at the time of invention to adjust the screen mesh pitch of De See according to the size of the particles to be filtered, no new or unpredictable results would be expected from such a modification.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ricks (US 4,567,703) and Claudio et al. (FR 2 671 128).

With regard to claim 14: Ricks discloses everything previously mentioned including the building separated from an outside atmosphere; the window is so oriented that one of the panes is an outside pane, being the one of the panes (24) that is in contact with the atmosphere outside the building, and the other of the panes (26) is an inside pane; and the through-hole in which the valve assembly lies assembled is a through-hole in the outside pane (26) (figs. 1-3).

Ricks fails to disclose the inside pane is provided with an inside-pane-through-hole; the inside-pane-through-hole being aligned with the through-hole in the outside pane to the extent that both holes can be drilled from inside the room; the through-hole,

the valve assembly, and the inside-pane-through-hole are so dimensioned that the valve-assembly can be passed through the inside-pane-through-hole, and can be inserted into the through-hole in the outside pane, from the room; the apparatus includes an inside-pane-plug, which lies inserted into the inside-pane-through-hole; the inside-pane-plug provides an airtight seal between the air in the vault and the air in the room.

However, Claudio discloses an outside pane (2) and inside pane (3) each having through holes for reception of a filter membrane (11) and plug (7g), wherein the filter membrane (11) is dimensioned so the filter membrane can be passed through the inside-pane-through-hole, and the inside-pane-plug provides a seal (fig. 7, lines 55-58).

It would have been obvious to one of ordinary skill in the art at the time of invention was made to modify the window Ricks to include aligned holes on the inside and outside panes to allow for installation of venting apparatus on the outside pane, wherein the inside pane includes a plug as taught by Claudio in order to provide a means for ventilation within a window structure that is convenient. Note the screen of Claudio is considered equivalent to the valve of Hick as both allow for pressure equalization between the panes of glass and the outside atmosphere.

Note, the limitation regarding the drilling of the holes is considered a product by process limitation. Determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product- by-process claim is the same as or obvious from a product of the prior art,

the claim is unpatentable even though the prior product was made by a different process. MPEP 2113.

Claims 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ricks (US 4,567,703) and Collins (CA 1,332,541).

With regard to claim 18: Ricks discloses everything previously mentioned, but fails to disclose the window is one in which the between-panes vault was formerly sealed airtight, until the provision of the said through-hole in the glass pane, and in which desiccant material housed in the vault is saturated or almost saturated with water.

However, Collins discloses remediating a window having accumulated moisture within the glazing panels, wherein the window further includes a desiccant (pg. 6, lines 8-10).

It would have been obvious to one of ordinary skill in the art at the time of invention was made to modify the apparatus of Ricks for use in windows with a desiccant material having accumulating moisture within the panes as taught by Collins in order to provide a means of remediating an older window to provide the ability to mitigate the accumulation of moisture in between the panes in the future.

With regard to claim 19: Ricks discloses everything previously mentioned, including a procedure comprising the step of providing the apparatus of claim 1.

Ricks fails to disclose a procedure for remediating a double-glazed window, including removing accumulated moisture from the between-panes vault; then blowing pre-dried air into the vault.

However, Collins discloses removing accumulated moisture from a window using a desiccant gas (pg. 9, lines 1-4).

It would have been obvious to one of ordinary skill in the art at the time of invention was made to modify the procedure of Ricks to include removing accumulating moisture from the a between-panes vault by blowing pre-dried air into the vault as taught by Collins in order to remediate a window having moisture present in between the panes.

Ricks, in view of Collins, discloses everything previously mentioned, but fails to disclose the air has been pre-dried to the extent that its dew point is twenty centigrade degrees below the dew point of the air outside of the vault.

However, it would have been obvious to one of ordinary skill in the art at the time of invention who was concerned with removing moisture from a window vault to use a gas that will prevent the saturation of the air and thus the formation of dew or water droplets, while removing any previously present moisture. Note the dew point temperature is well known to be the temperature at which air (gas) must be cooled in order to reach saturation. Accordingly, one of ordinary skill in the art at the time of invention would recognize the use a gas with a dew point temperature generally the same at the air outside the vault will not result in adequate moisture removal.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art cited is directed to valves and/or window assemblies.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JESSIE FONSECA whose telephone number is (571)272-7195. The examiner can normally be reached on M-F 7:30am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Canfield can be reached on (571)272-6840. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. F./
Examiner, Art Unit 3633

/Robert J Canfield/

Supervisory Patent Examiner, Art Unit 3635